FIG. 1

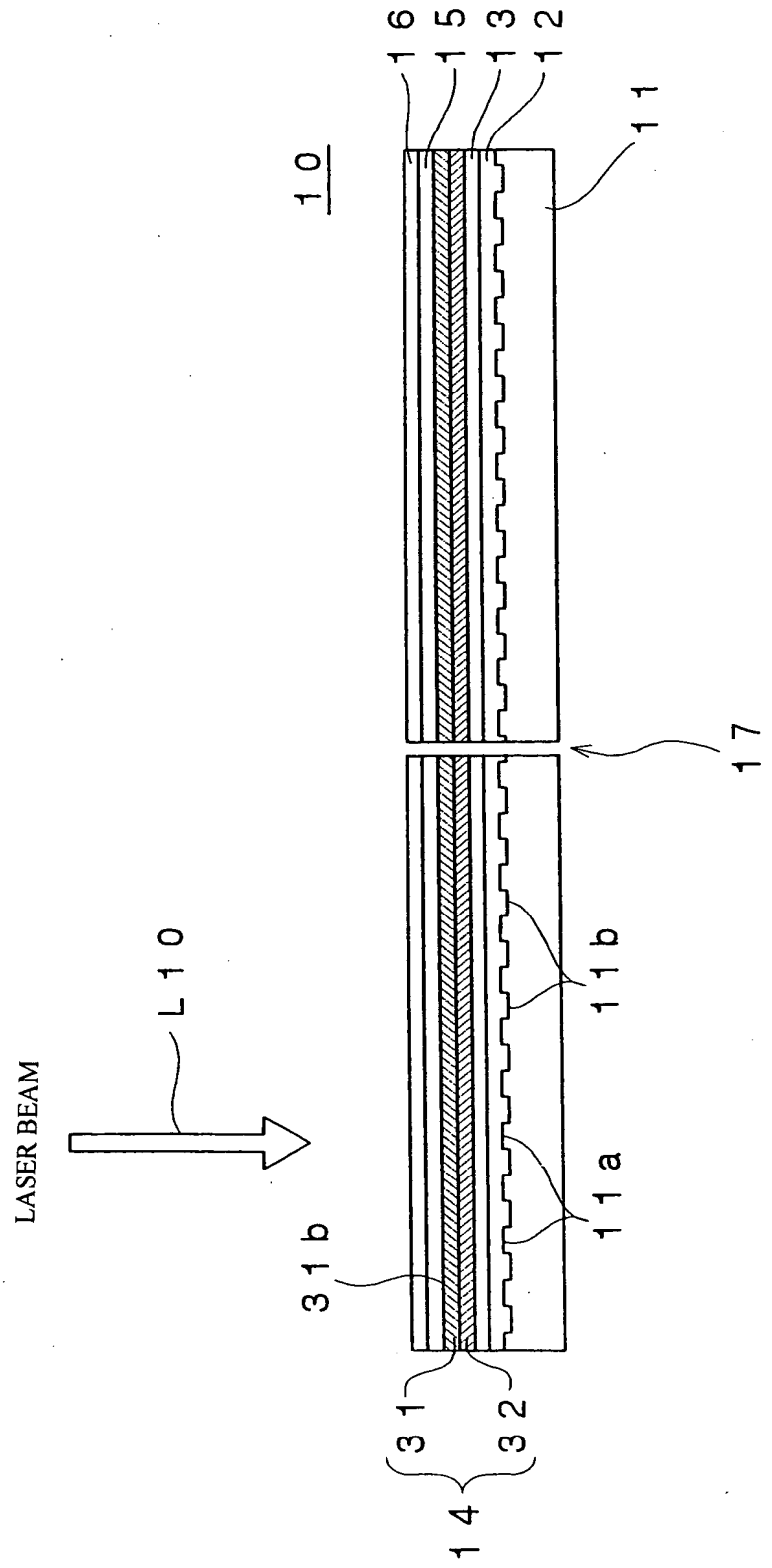
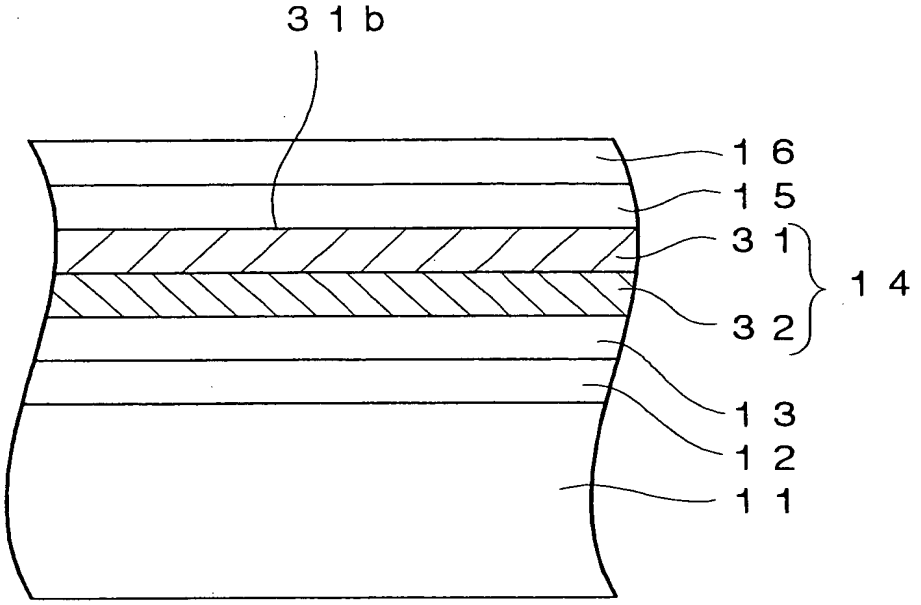
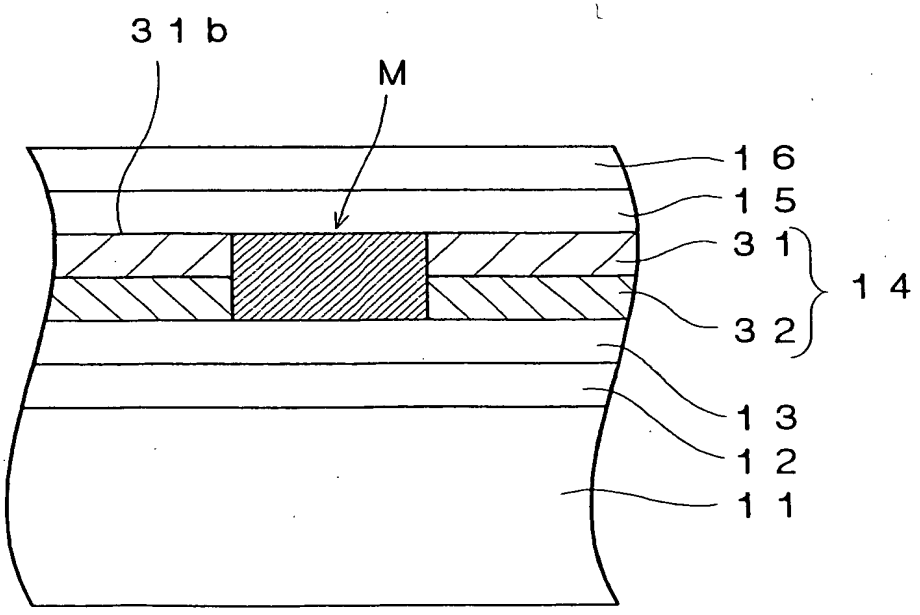


FIG. 2

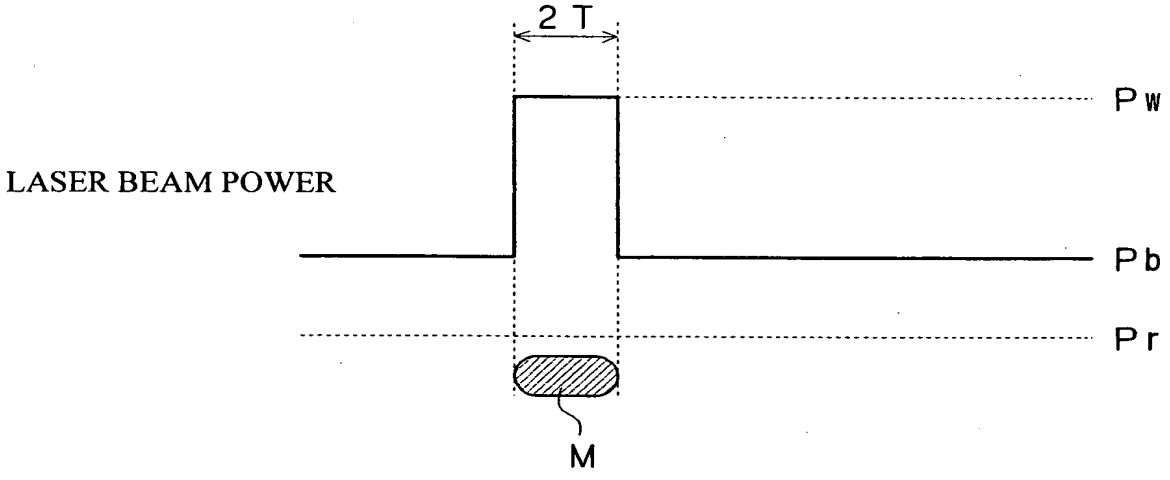


(a)

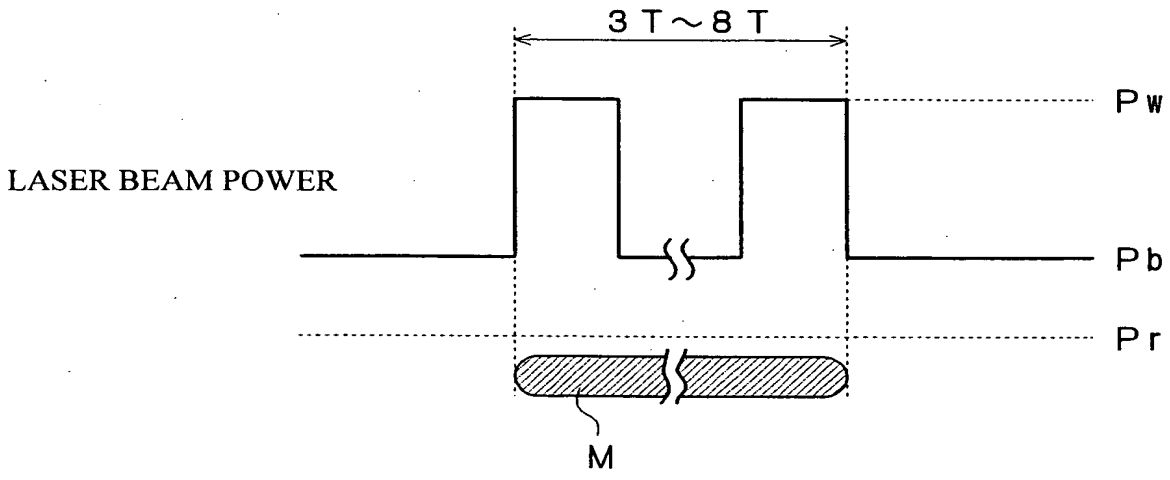


(b)

FIG. 3



(a)



(b)

FIG. 4

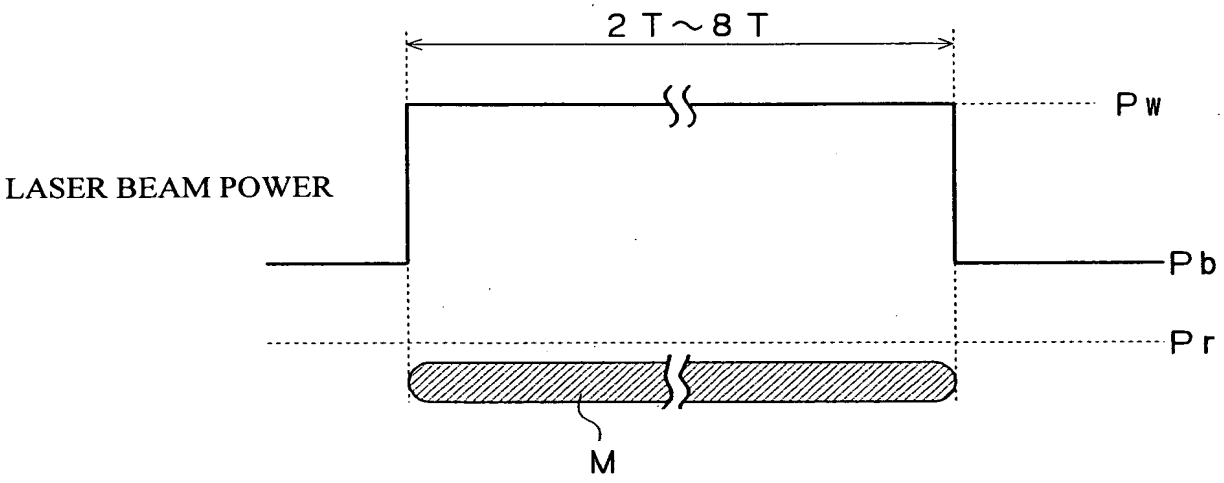


FIG. 5

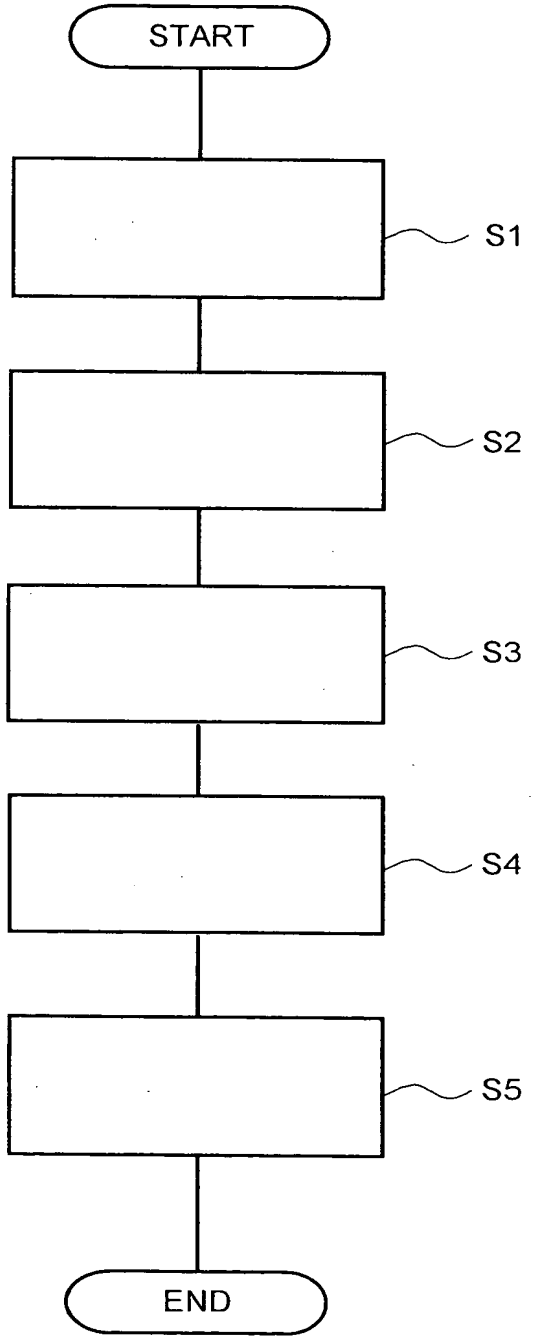
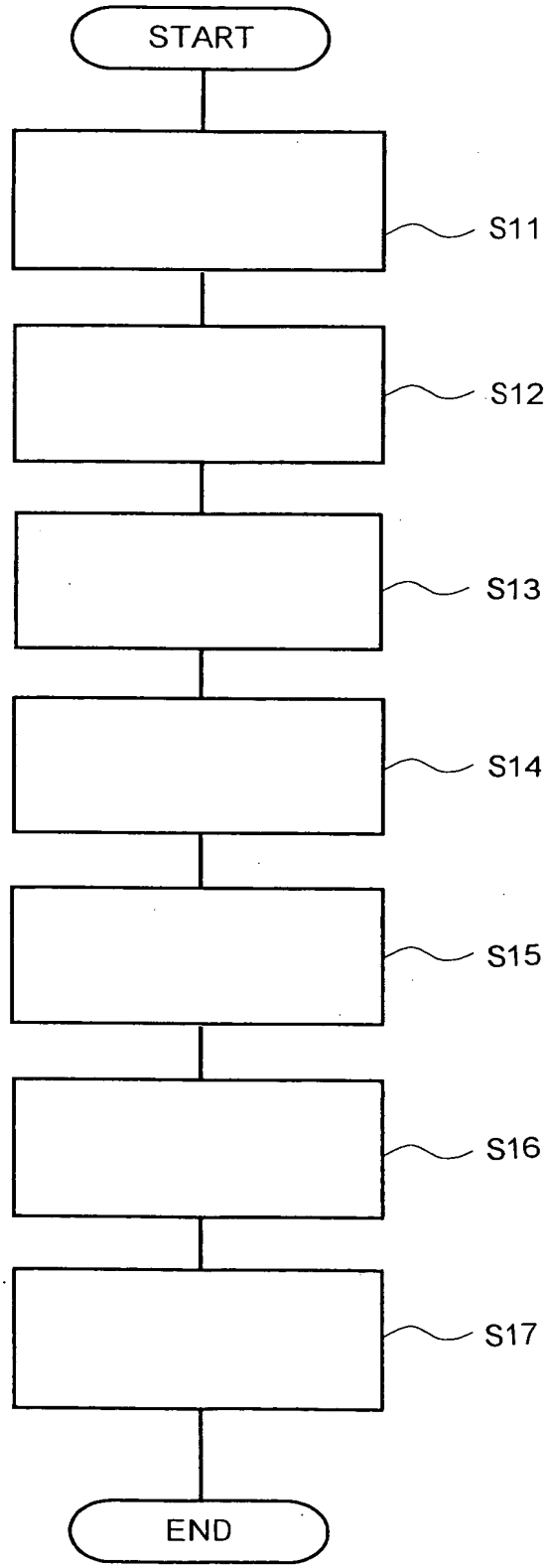


FIG. 6



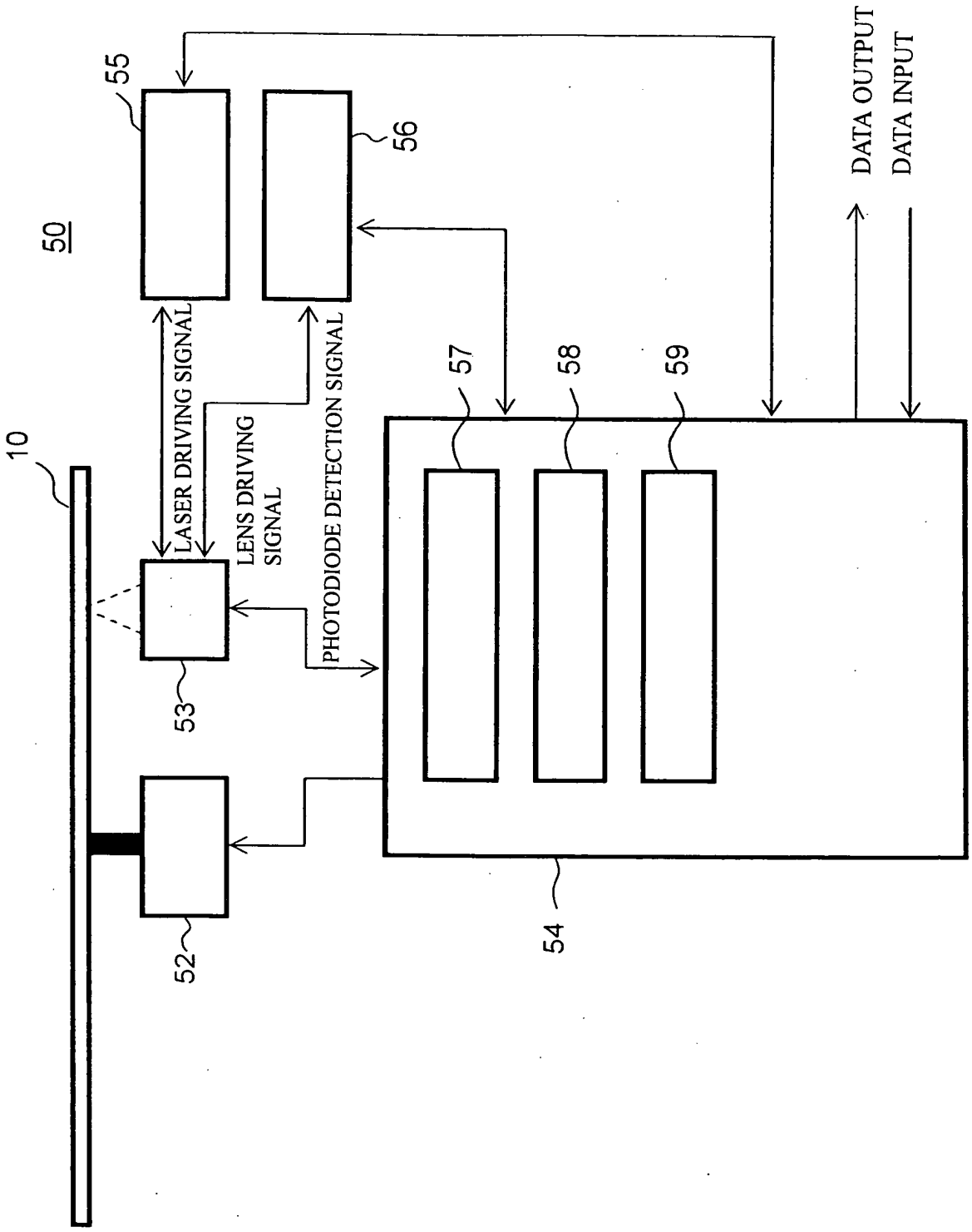

50
55
56
DATA OUTPUT
DATA INPUT
LASER DRIVING SIGNAL
LENS DRIVING SIGNAL
PHOTODIODE DETECTION SIGNAL
57
58
59
10
53
52
54

FIG. 7

FIG. 8

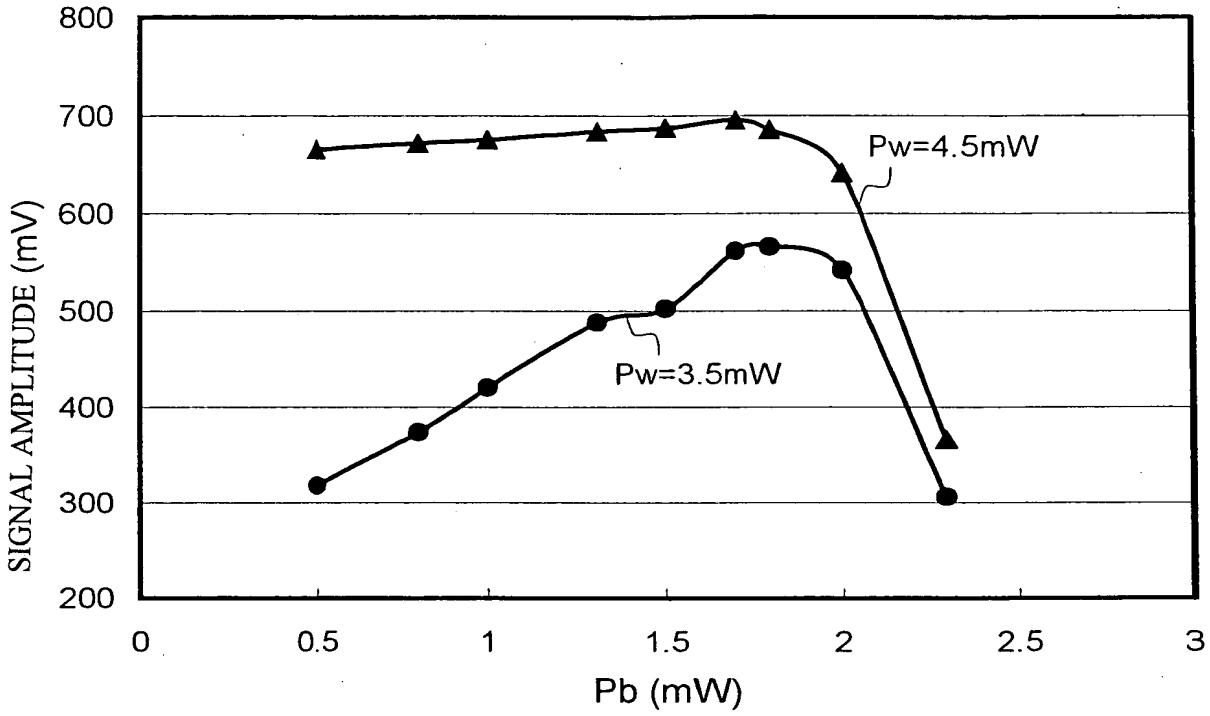

800
700
600
500
400
300
200
SIGNAL AMPLITUDE (mV)
Pw=4.5mW
Pw=3.5mW
0
0.5
1
1.5
2
2.5
3
Pb (mW)

FIG. 9

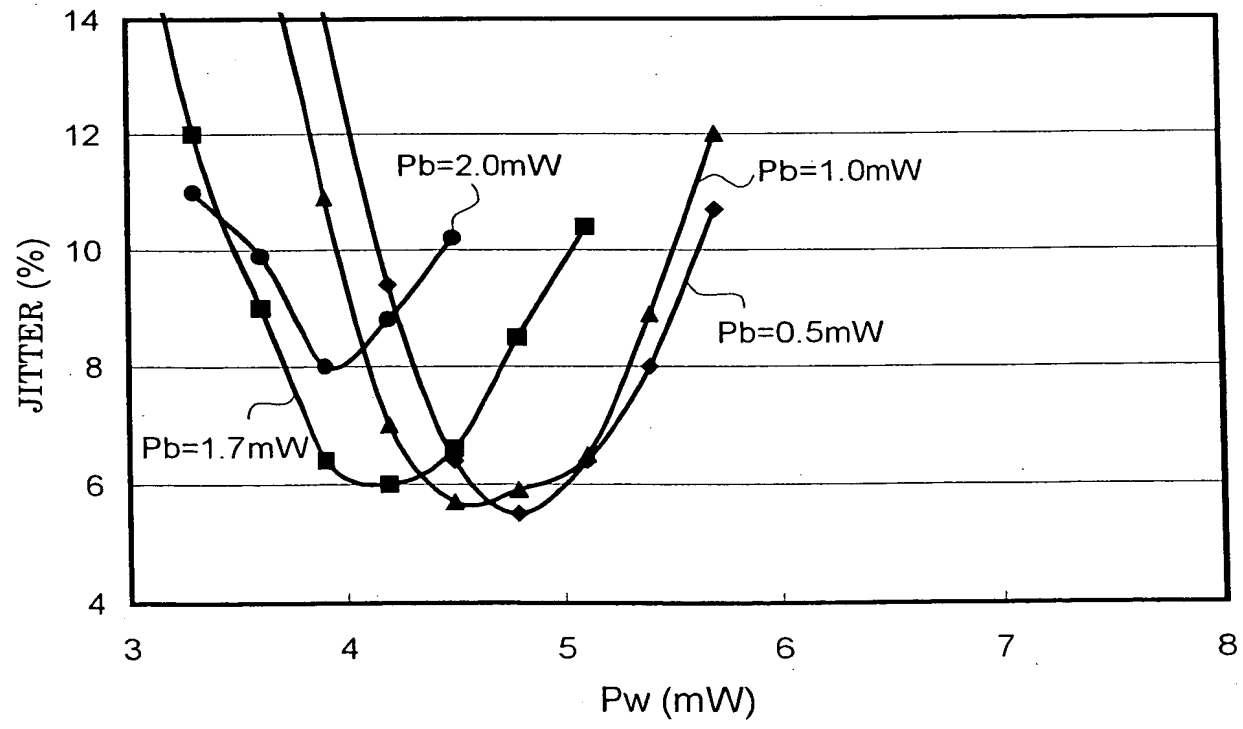

14
12
10
8
6
4
JITTER (%)
Pb=2.0mW
Pb=1.0mW
Pb=0.5mW
Pb=1.7mW
3
4
5
6
7
8
Pw (mW)

FIG. 10

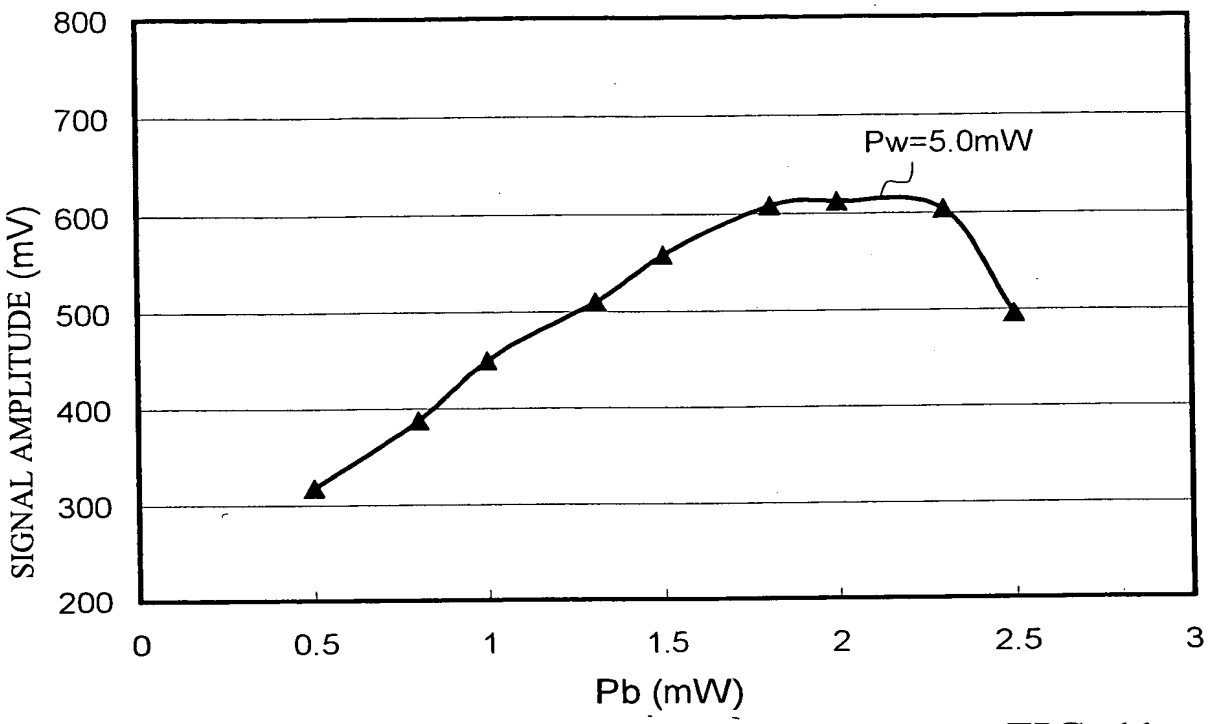

800
700
600
500
400
300
200
SIGNAL AMPLITUDE (mV)
Pw=5.0mW
0
0.5
1
1.5
2
2.5
3
Pb (mW)

FIG. 11

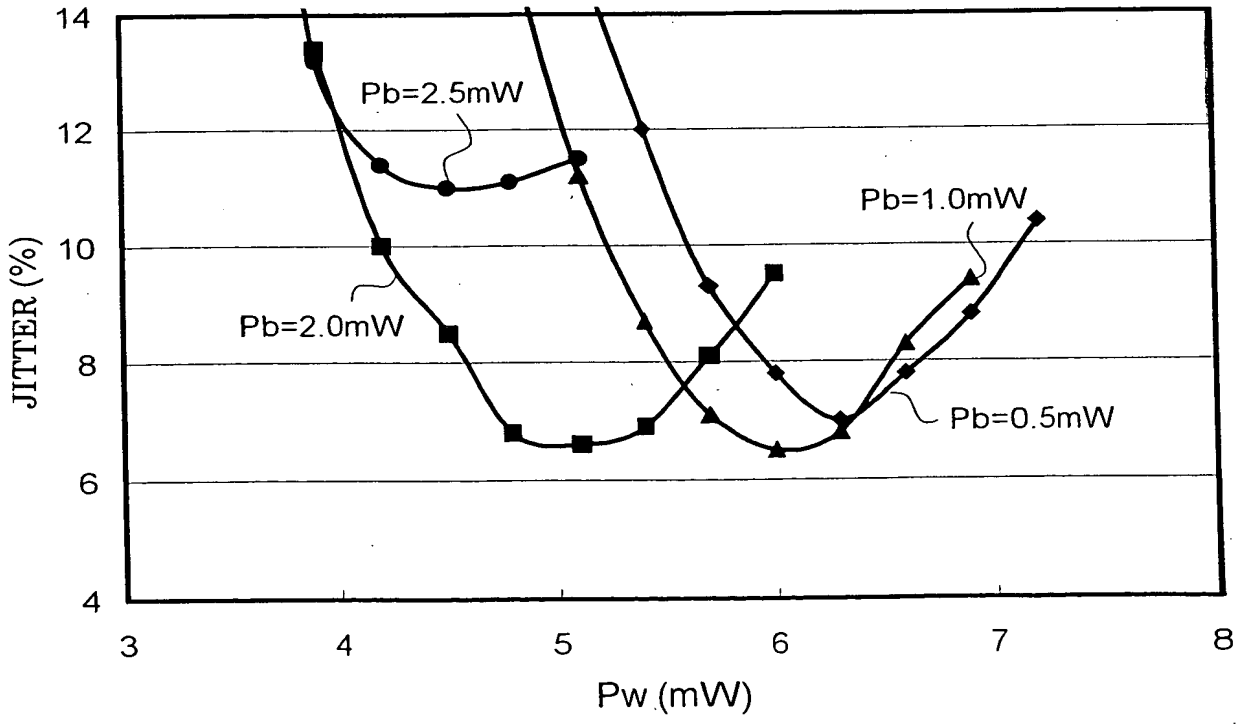

14
12
10
8
6
4
JITTER (%)
Pb=2.5mW
Pb=1.0mW
Pb=2.0mW
Pb=0.5mW
3
4
5
6
7
8
Pw (mW)

FIG. 12

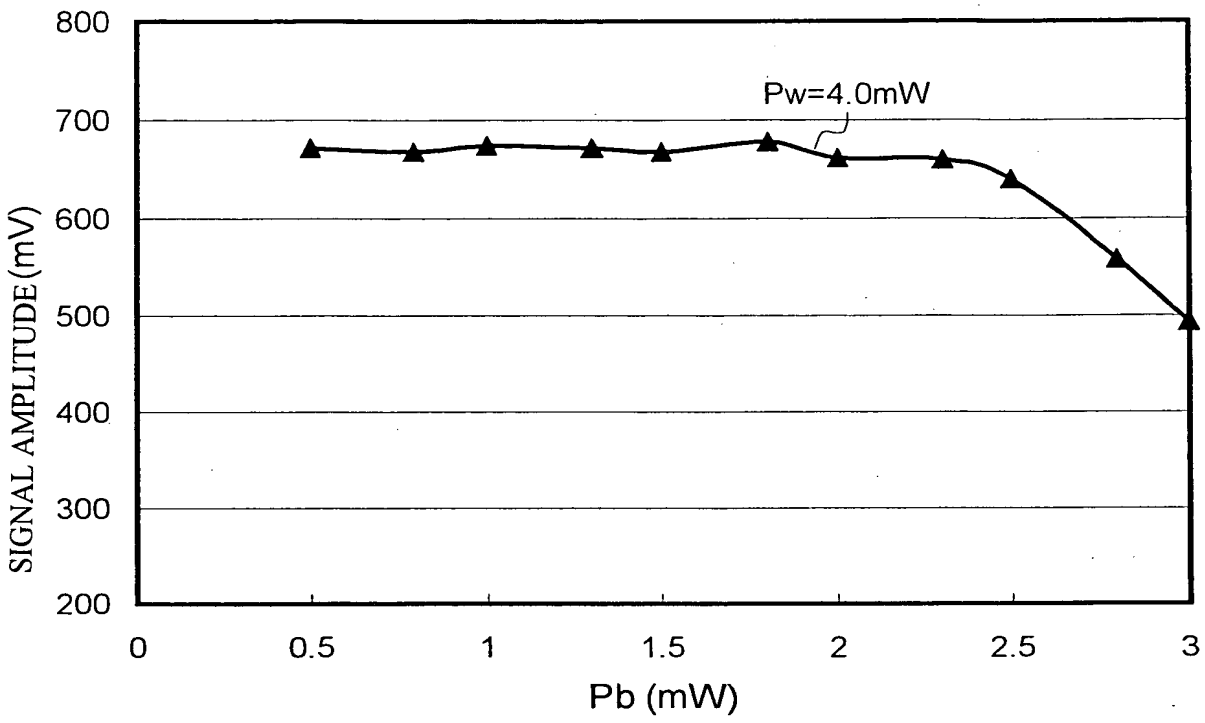

800
700
600
500
400
300
200
SIGNAL AMPLITUDE (mV)
Pw=4.0mW
0
0.5
1
1.5
2
2.5
3
Pb (mW)

FIG. 13

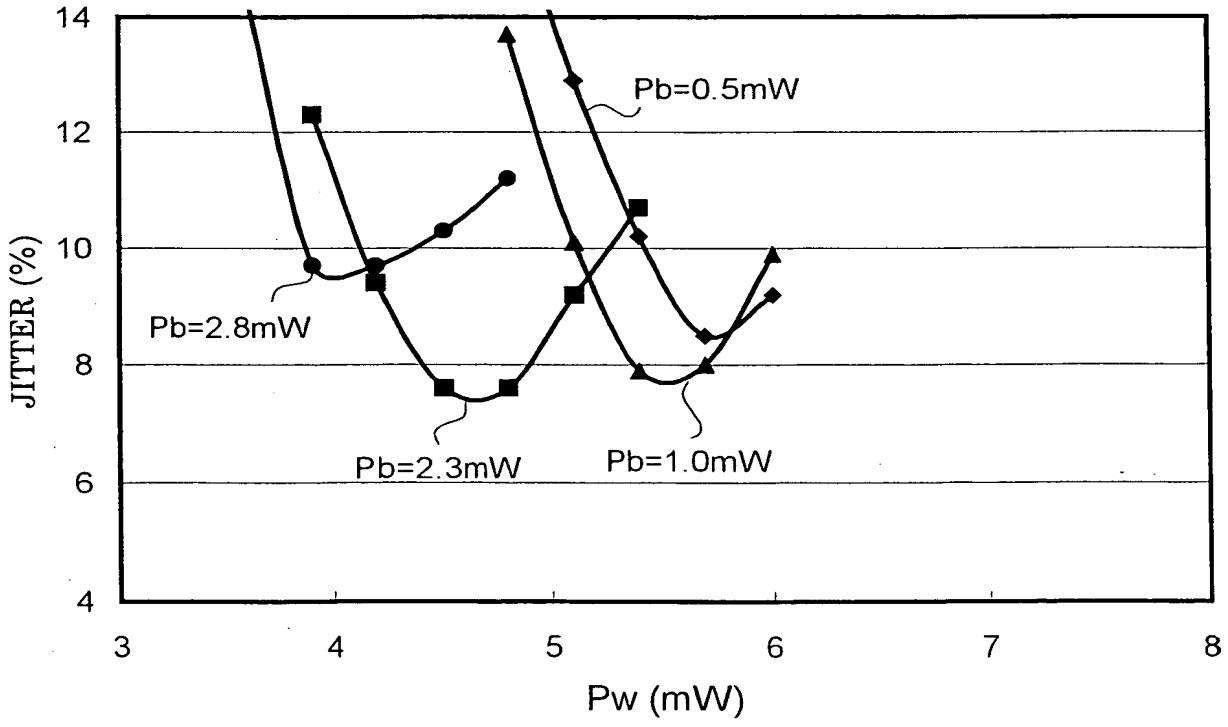

14
12
10
8
6
4
JITTER (%)
Pb=0.5mW
Pb=2.8mW
Pb=2.3mW
Pb=1.0mW
3
4
5
6
7
8
Pw (mW)

FIG. 14

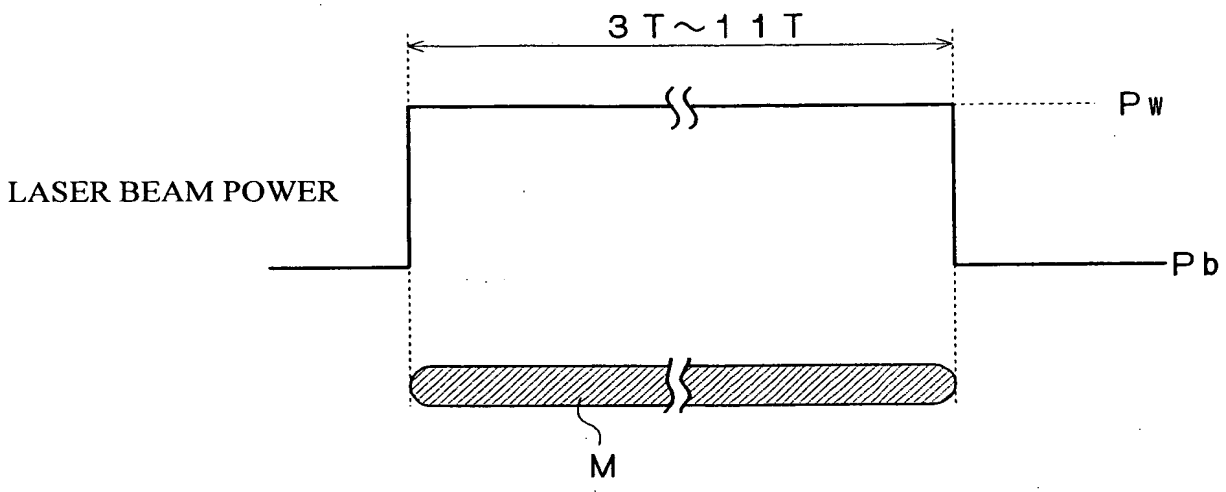
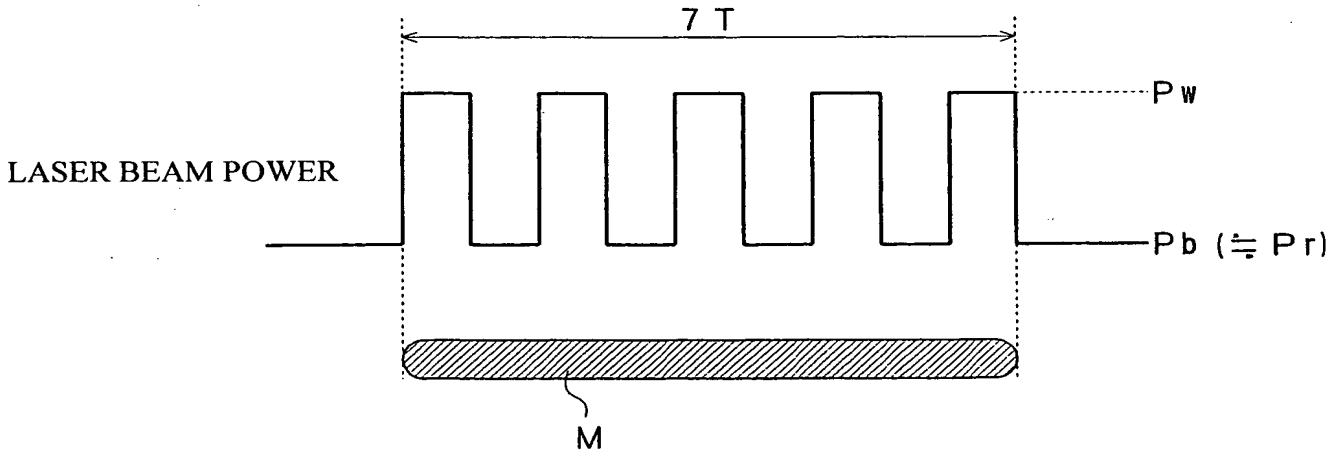


FIG. 15



52……SPINDLE MOTOR
53……HEAD
54……CONTROLLER
55……LASER DRIVE CIRCUIT
56……LENS DRIVE CIRCUIT
57……FOCUS SERVO TRACKING CIRCUIT
58……TRACKING SERVO CIRCUIT
59……LASER CONTROL CIRCUIT
S1……RECORDING FIRST TEST SIGNALS
S2……DETERMINING AN OPTIMUM LEVEL *PB0* OF *PB*
S3……RECORDING SECOND TEST SIGNALS
S4……DETERMINING AN OPTIMUM LEVEL *PW0* OF *PW*
S5……STORING *PB0* AND *PW0*
S11……RECORDING SECOND TEST SIGNALS
S12……TENTATIVELY DETERMINING AN OPTIMUM LEVEL *PW0* OF *PW*
S13……RECORDING FIRST TEST SIGNALS
S14……DETERMINING AN OPTIMUM LEVEL *PB0* OF *PB*
S15……RECORDING SECOND TEST SIGNALS
S16……DETERMINING AN OPTIMUM LEVEL *PW0* OF *PW*
S17……STORING *PB0* AND *PW0*